	Table A	Table B	Table C
Primary Key	*a*	*b*	*(a,b)*
Primary Index	*a*	*b*	*(a,b)*
Foreign Keys			*a,b*

Figure 1

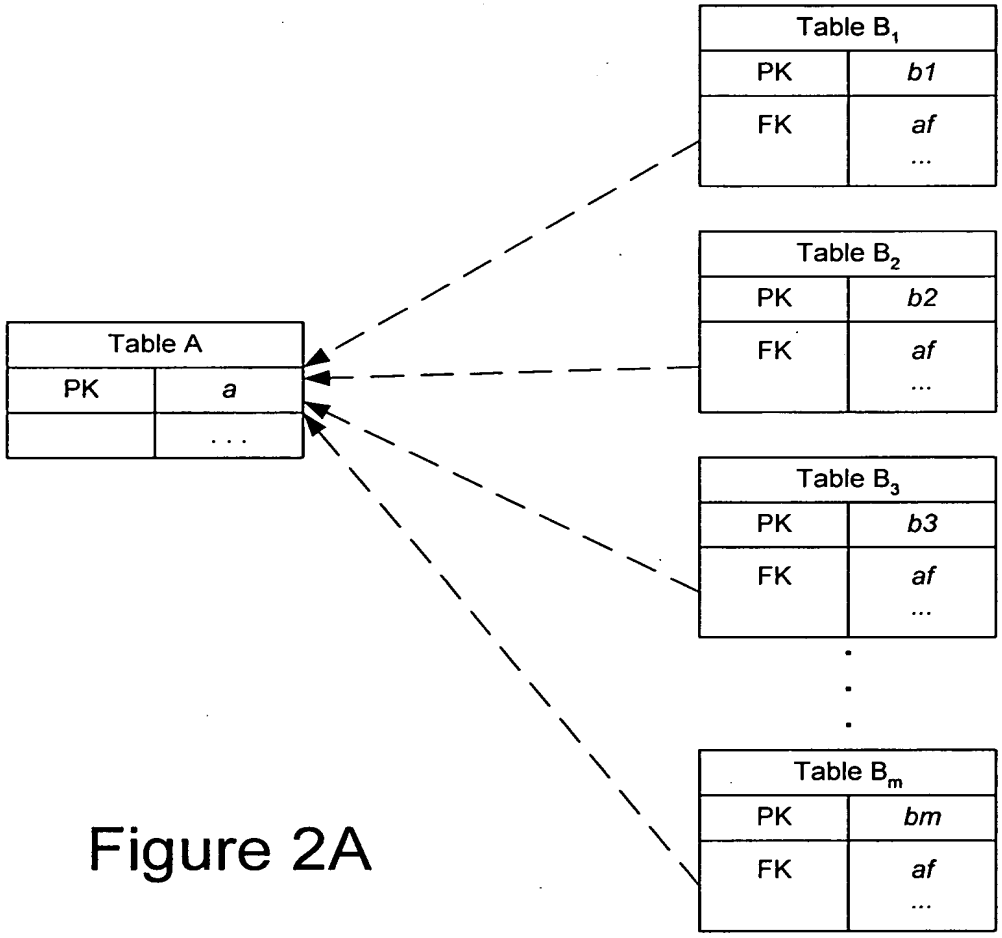

Figure 2A

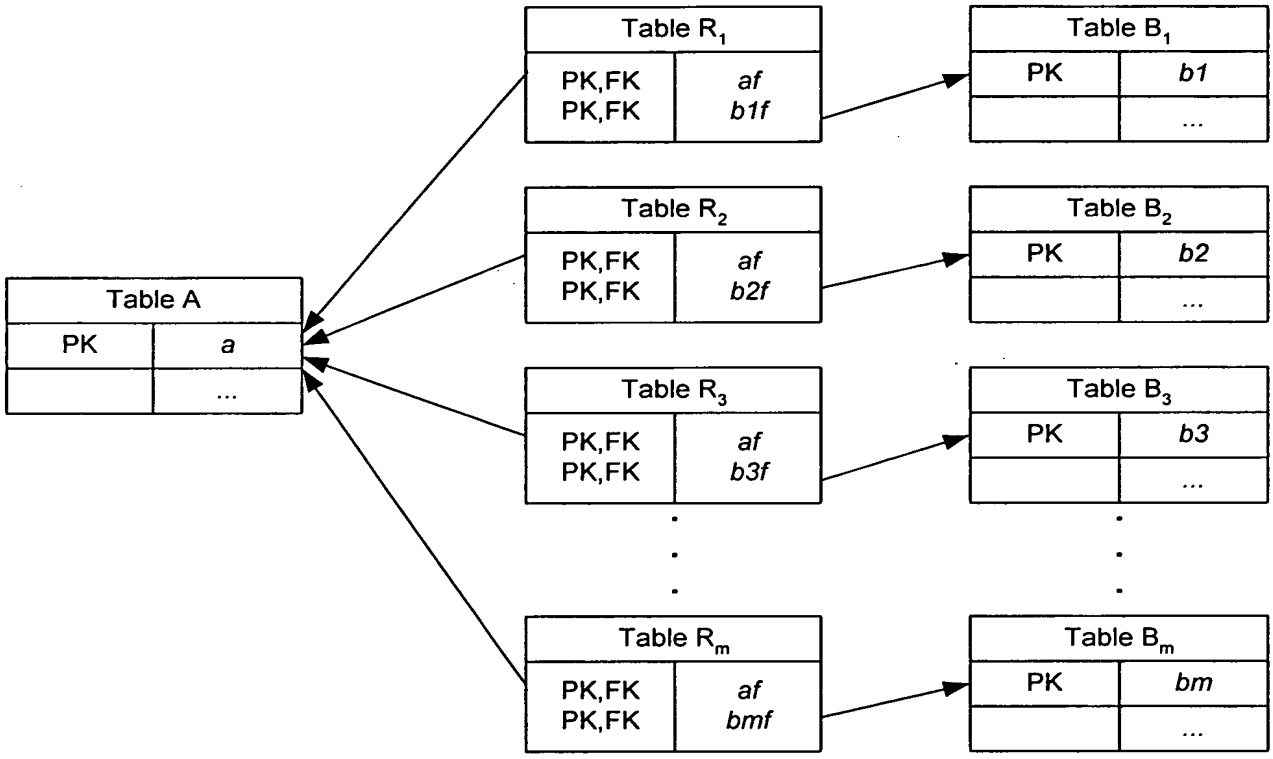
Table A
PK
a
...
Table R1
PK,FK
PK,FK
af
b1f
Table R2
PK,FK
PK,FK
af
b2f
Table R3
PK,FK
PK,FK
af
b3f
Table Rm
PK,FK
PK,FK
af
bmf
Table B1
PK
b1
...
Table B2
PK
b2
...
Table B3
PK
b3
...
Table Bm
PK
bm
...

Figure 2B

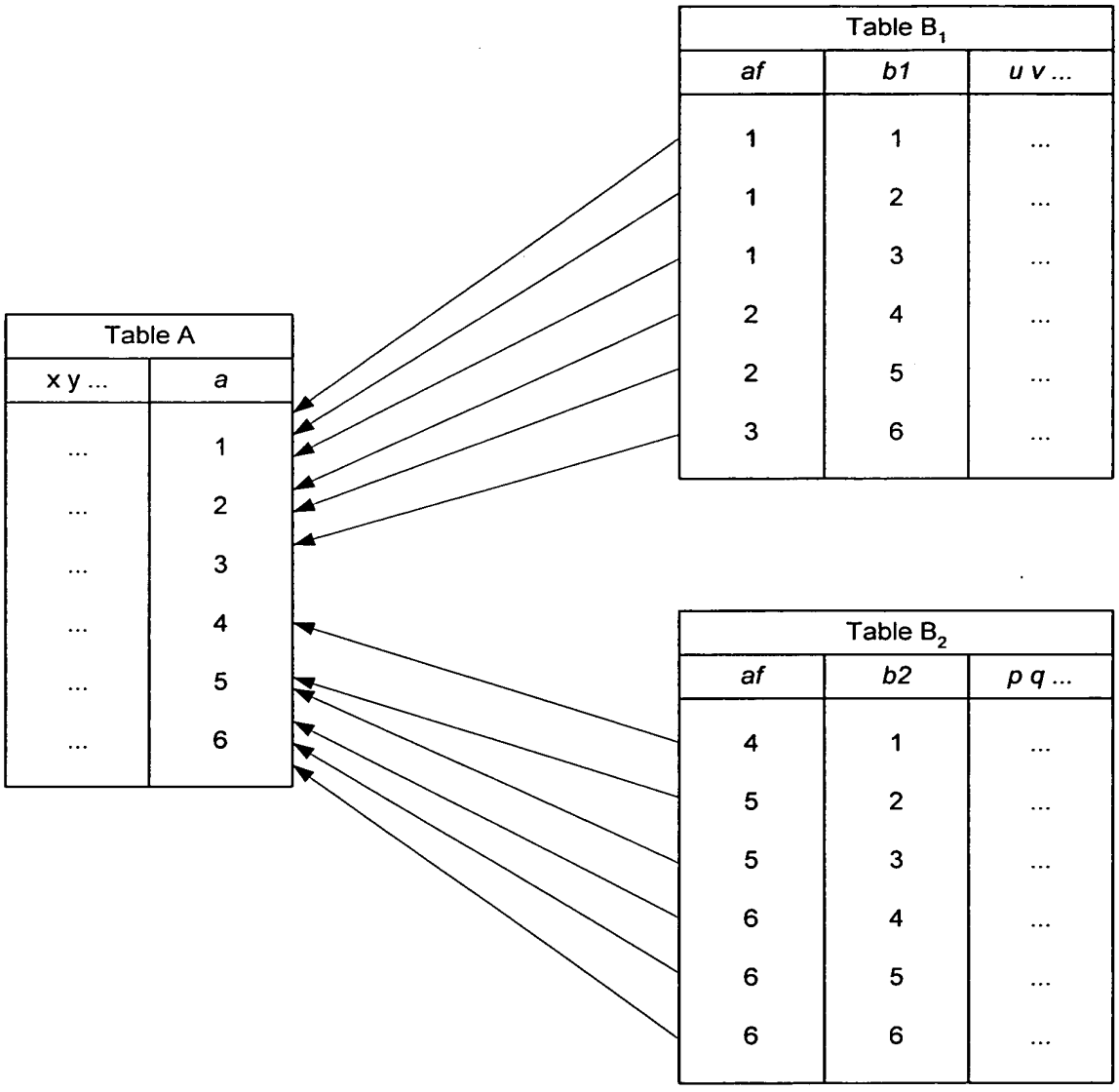
Table A
x y ...
a
...
1
...
2
...
3
...
4
...
5
...
6
Table B1
af
b1
u v ...
1
1
...
1
2
...
1
3
...
2
4
...
2
5
...
3
6
...
Table B2
af
b2
p q ...
4
1
...
5
2
...
5
3
...
6
4
...
6
5
...
6
6
...

Figure 2C

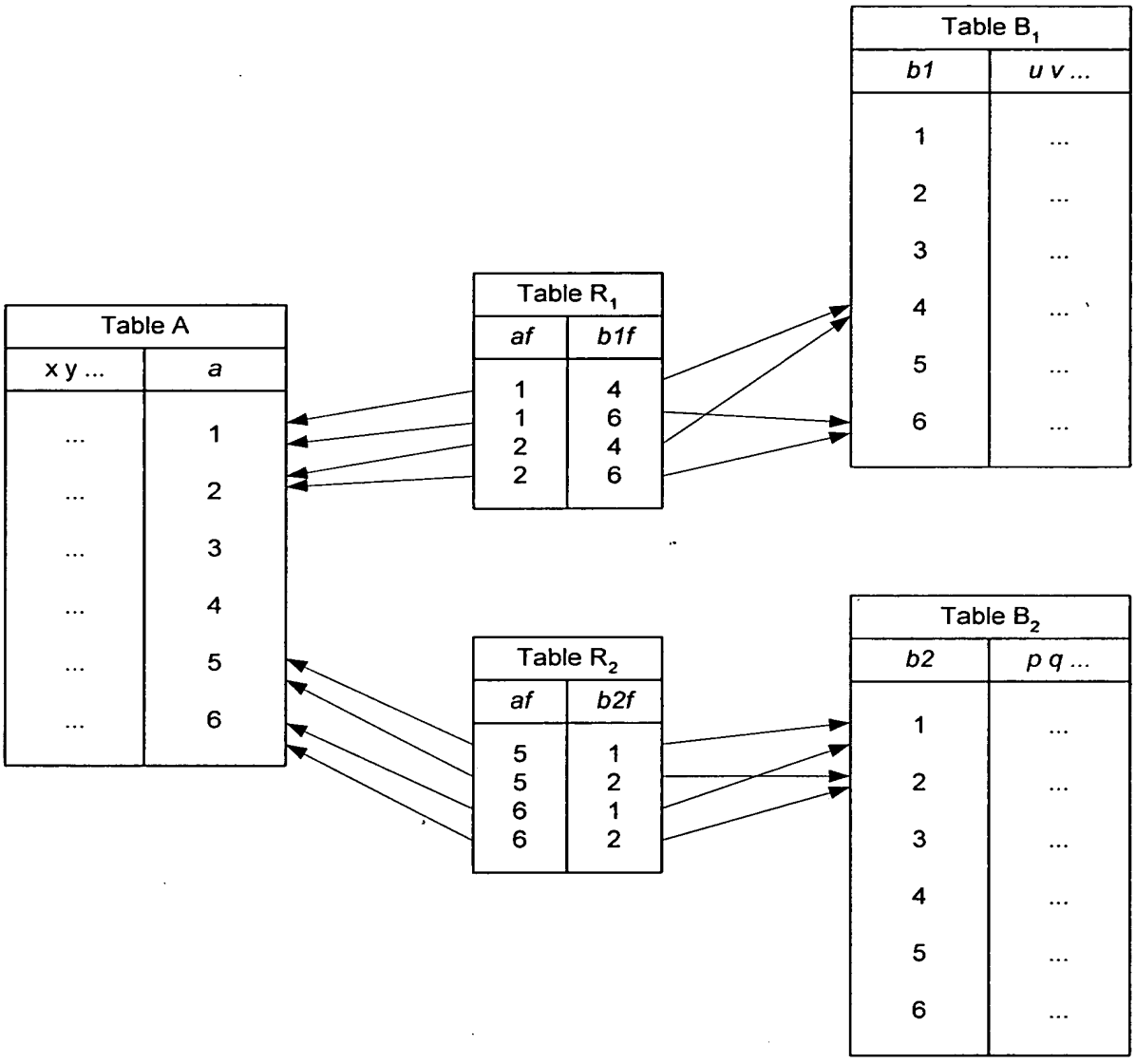
Table A
x y ...
a
...
1
...
2
...
3
...
4
...
5
...
6
Table R1
af
b1f
1
1
2
2
4
6
4
6
Table R2
af
b2f
5
5
6
6
1
2
1
2
Table B1
b1
u v ...
1
2
3
4
5
6
...
...
...
...
...
...
Table B2
b2
p q ...
1
2
3
4
5
6
...
...
...
...
...
...

Figure 2D

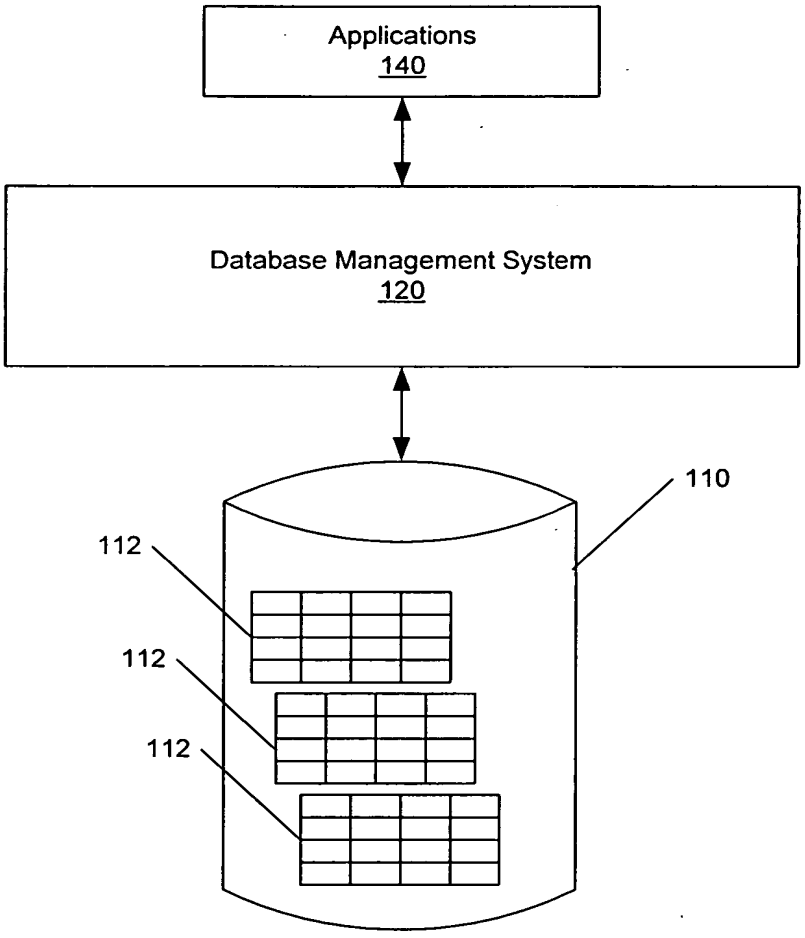
Applications
140
Database Management System
120
110
112
112
112

Figure 3

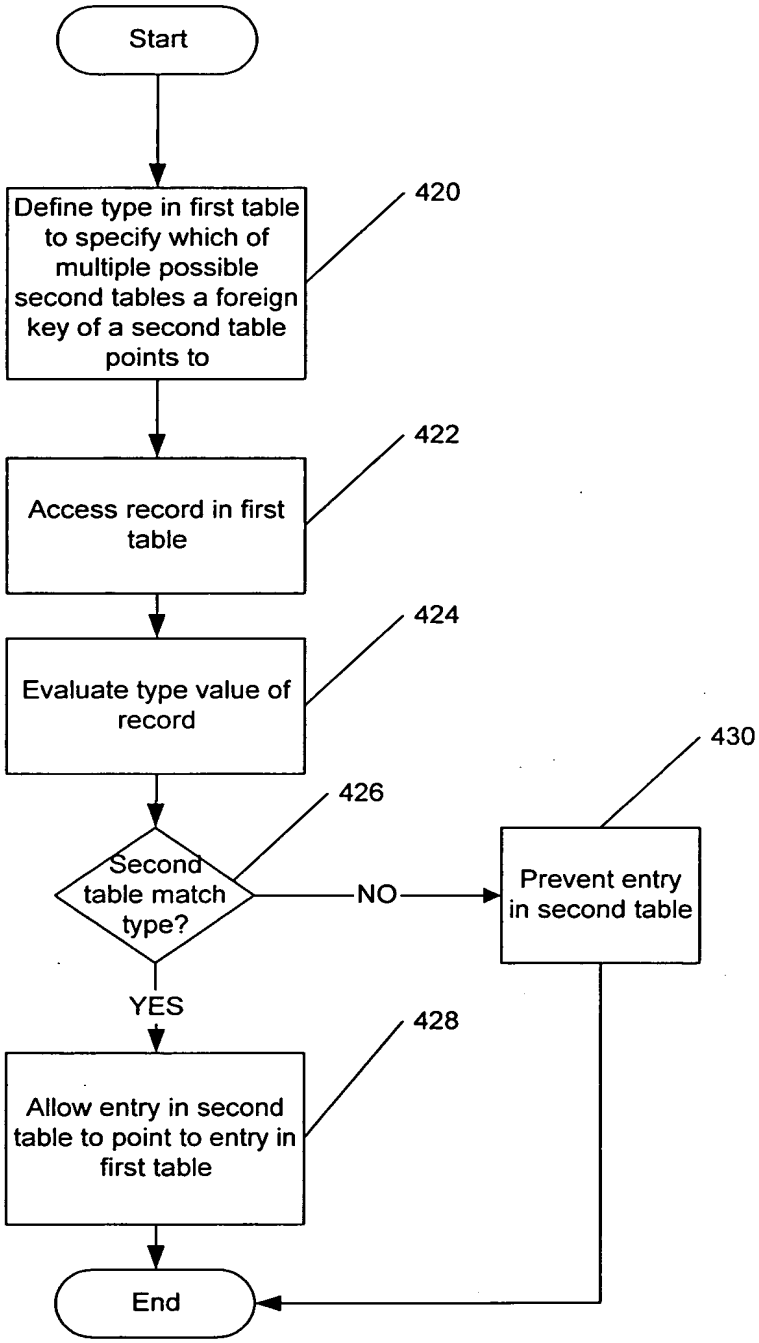
Start
Define type in first table to specify which of multiple possible second tables a foreign key of a second table points to
420
Access record in first table
422
Evaluate type value of record
424
Second table match type?
426
NO
Prevent entry in second table
430
YES
Allow entry in second table to point to entry in first table
428
End

Figure 4A

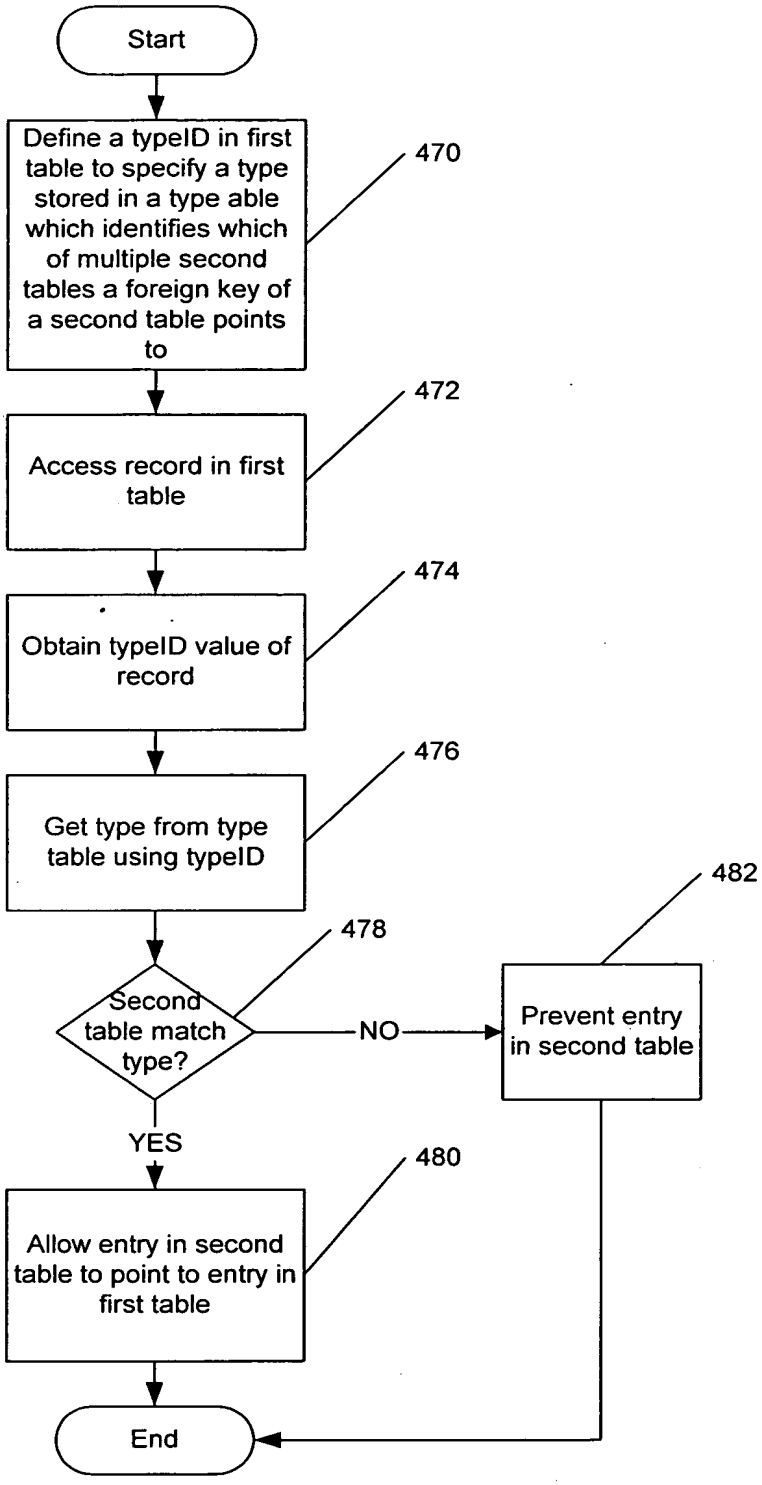
Start
Define a typeID in first table to specify a type stored in a type able which identifies which of multiple second tables a foreign key of a second table points to
470
Access record in first table
472
Obtain typeID value of record
474
Get type from type table using typeID
476
Second table match type?
478
NO
Prevent entry in second table
482
YES
Allow entry in second table to point to entry in first table
480
End

Figure 4B

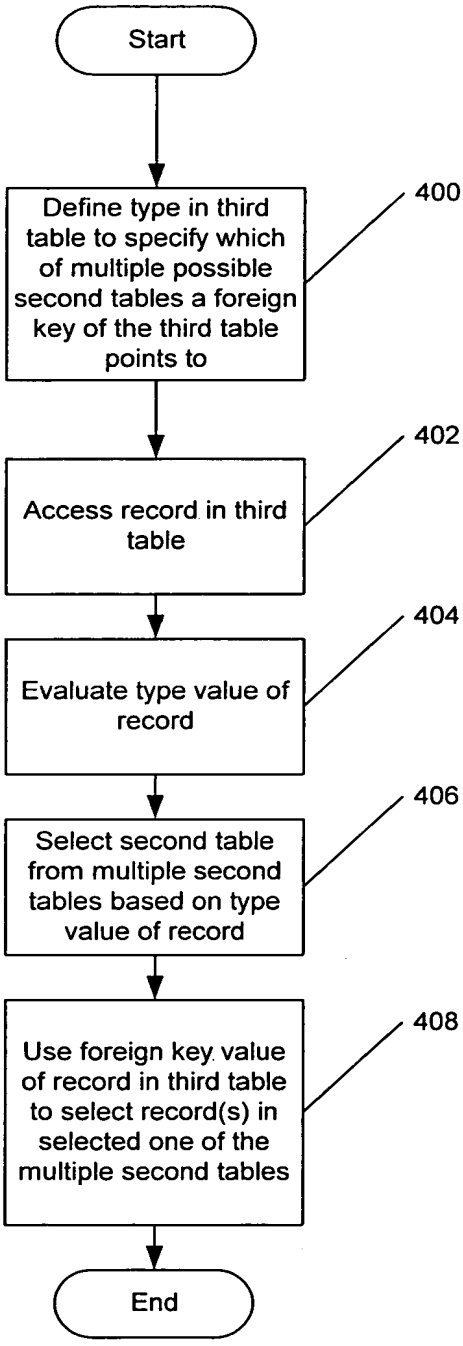
Start
Define type in third table to specify which of multiple possible second tables a foreign key of the third table points to
400
Access record in third table
402
Evaluate type value of record
404
Select second table from multiple second tables based on type value of record
406
Use foreign key value of record in third table to select record(s) in selected one of the multiple second tables
408
End

Figure 4C

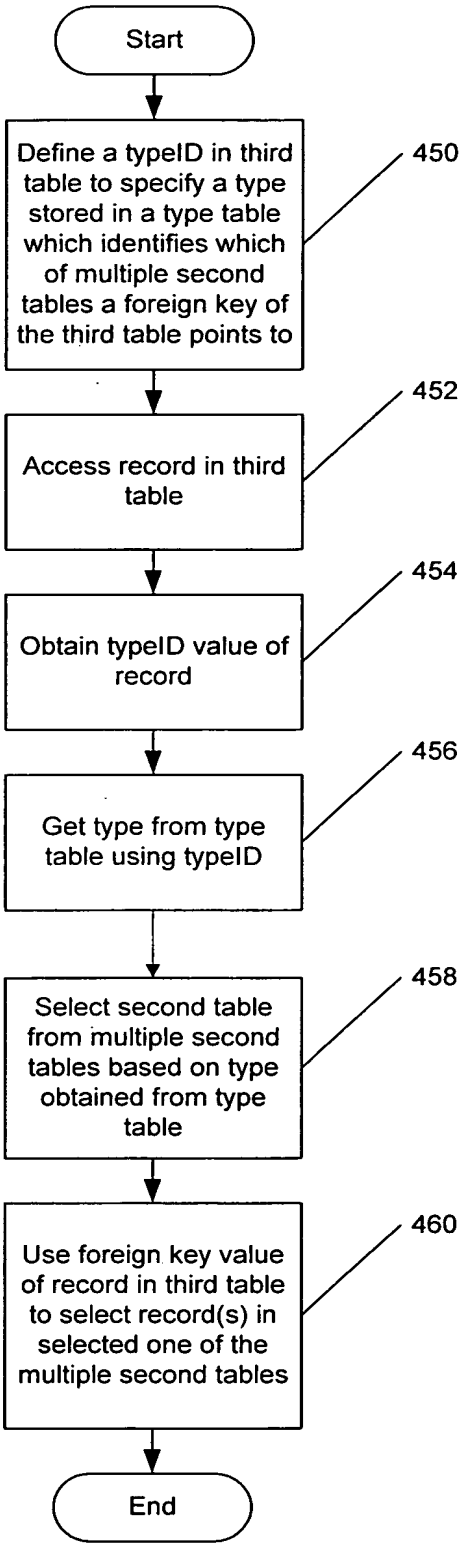
Start
Define a typeID in third table to specify a type stored in a type table which identifies which of multiple second tables a foreign key of the third table points to
450
Access record in third table
452
Obtain typeID value of record
454
Get type from type table using typeID
456
Select second table from multiple second tables based on type obtained from type table
458
Use foreign key value of record in third table to select record(s) in selected one of the multiple second tables
460
End

Figure 4D

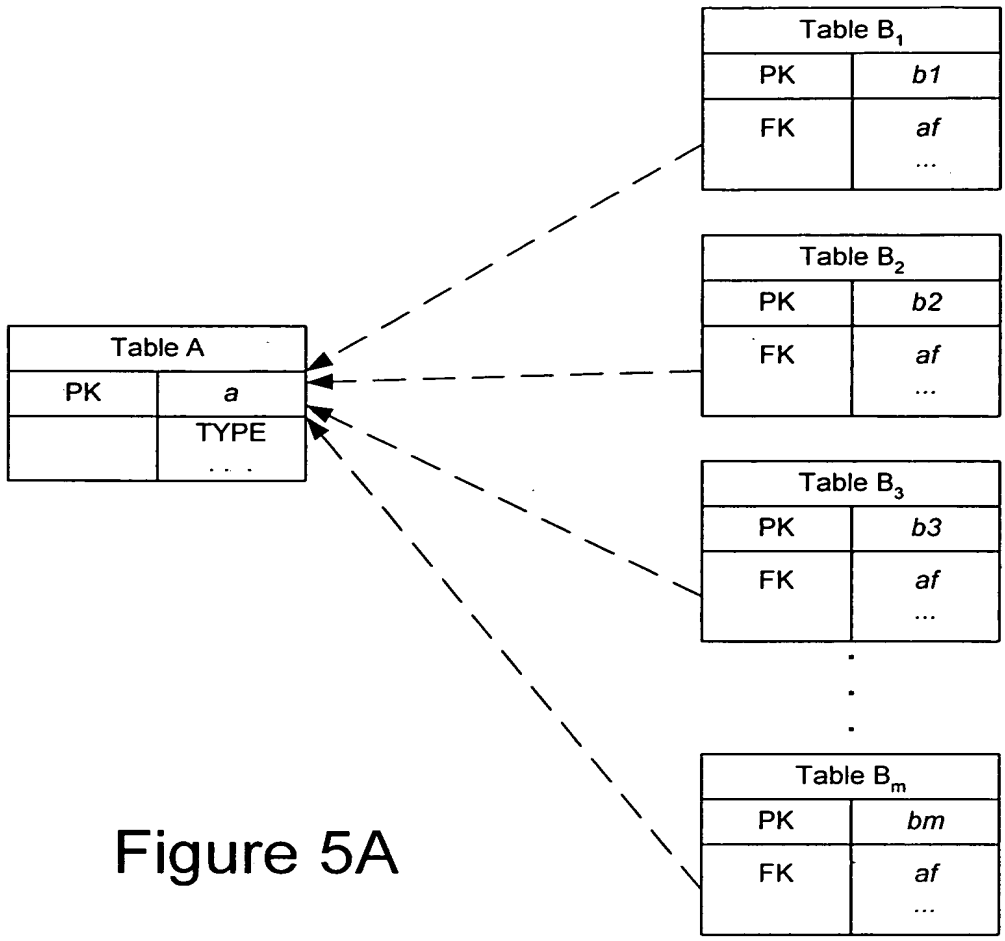

Figure 5A

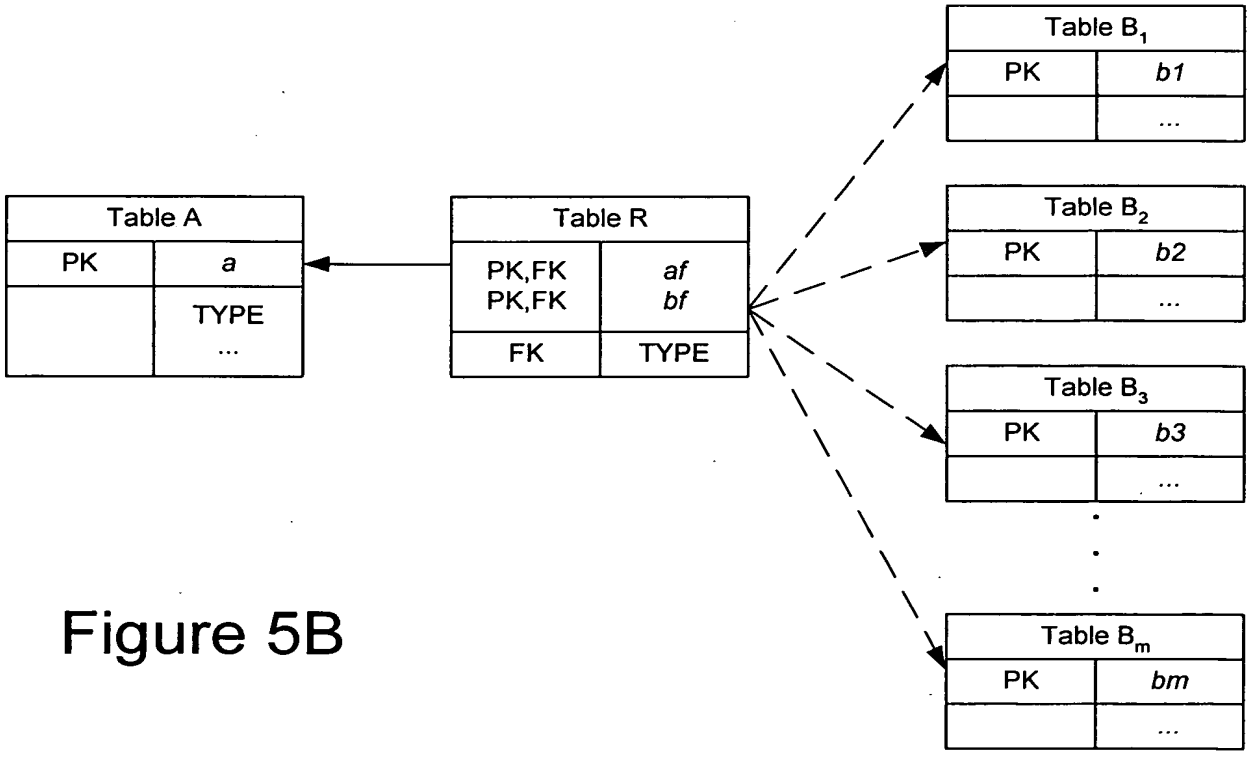

Figure 5B

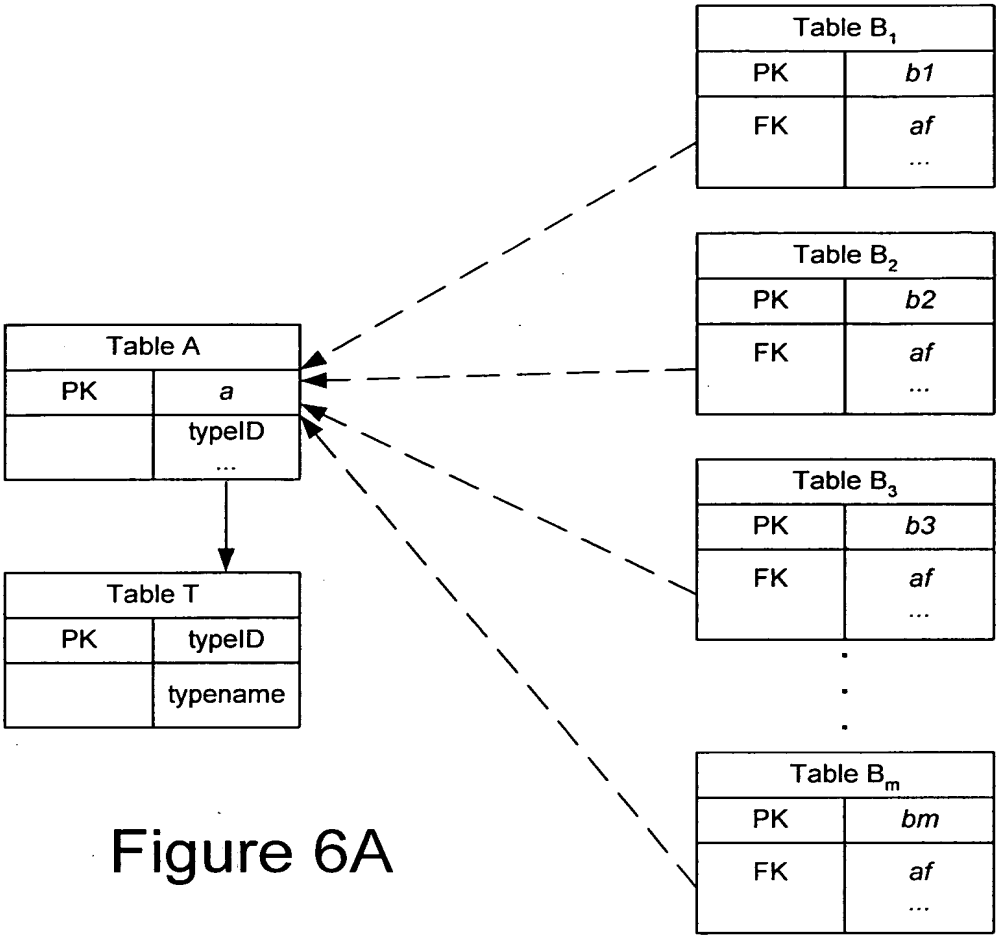

Figure 6A

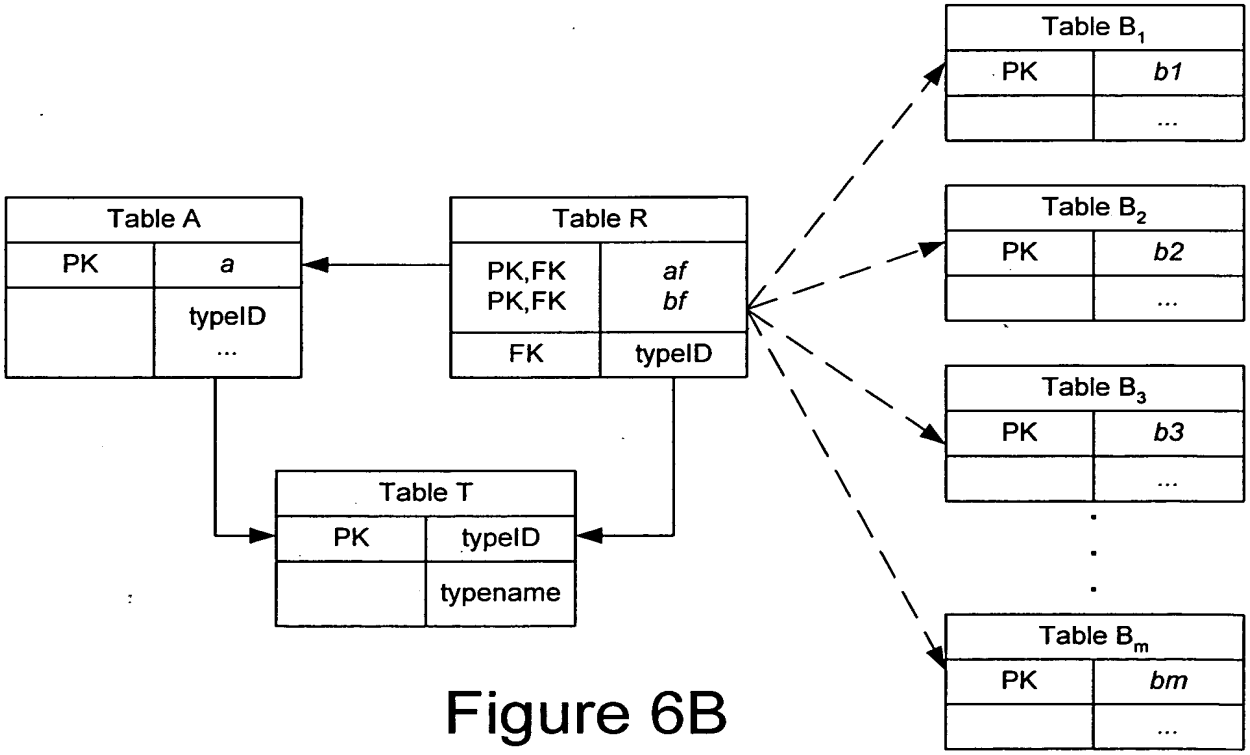

Figure 6B